

### **REMARKS**

The Examiner is thanked for the allowance of Claim 32.

No claims have been amended, added, or cancelled. Hence, Claims 1-32 are currently pending in the application.

### **SUMMARY OF THE REJECTIONS**

Claims 1-7, 9-24, and 26-31 have been rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over U.S. Patent Number 6,539,425 issued to Stevens ("*Stevens*") in view of U.S. Patent Number 6,263,367 issued to Chu et al. ("*Chu*").

Claims 8 and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form.

The rejections are respectfully traversed.

### **RESPONSE TO REJECTIONS**

Even if *Stevens* and *Chu* are properly combined, each of Claims 1-32 is patentable over the cited art because at least one element in each pending claim is not disclosed, taught, or suggested by the cited art, either individually or in combination. However, as explained below, *Stevens* and *Chu* have not been properly combined; consequently, any rejection under 35 U.S.C. § 103(a) based on an improper combination of *Stevens* and *Chu* may not be sustained.

#### **A. CLAIMS 1, 18, 26, AND 27**

Claims 1, 18, and 27 each feature:

“receiving a validity period value of one of a plurality of directory information trees that are created and stored in the directory service in association with a directory information tree manager;  
when quality of service policy management information is needed, determining which one of the directory information trees is a currently active directory information tree;  
retrieving the quality of service policy management information from the currently active directory information tree only during a time period within the validity period value thereof”

Claim 26 features:

“means for receiving a validity period value of one of a plurality of directory information trees that are created and stored in the directory service in association with a directory information tree manager;  
means for determining, when quality of service policy management information is needed, which one of the directory information trees is a currently active directory information tree;  
means for retrieving the quality of service policy management information from the currently active directory information tree only during a time period within the validity period value thereof”

The above-quoted elements are not disclosed, taught, or suggested by the cited art.

The element of “when quality of service policy management information is needed, determining which one of the directory information trees is a currently active directory information tree,” featured in Claims 1, 18, and 27, is not shown by the cited portion (Col. 4, lines 41-54; Col. 12, lines 23-63) of *Stevens*.

The approach of *Stevens* involves a distributed data model that “allows policy information to be efficiently retrieved not only from a centralized (usually replicated) directory server, but also from virtually all network devices.” (See Col. 4, lines 58-60). Each of the network devices may employ a replicated directory tree to store policy information. However, in contrast to the claims, there is no suggestion anywhere in *Stevens* of determining which directory information tree is a currently active directory. While the claims recite retrieving information from a currently active directory information tree only during a time period within the validity period value, *Stevens* teaches that information may be retrieved from the replicated directories (such as those shown in FIG. 7) at any time.

For example, *Stevens* teaches “access [to the directories on the network device] is advantageously granted (e.g., a data element is delivered) by messages sent to the target associated network device, after the occurrence of some event (such as exceeding a prescribed bandwidth allocation or congestion level).” (See Col. 4, line 65 – Col. 5, line 2). Thus, in the approach of *Stevens*, access to information in a directory information tree is not based on which directory information tree is a currently active directory tree, but rather access is automatically granted. *Stevens* makes clear that “updated policy information available locally ... is advantageously provided to other affected network devices upon request or pushed under

locally determined circumstances.” (See Col. 14, lines 12-15). Thus, when quality of service policy management information is needed in the approach of *Stevens*, nothing is performed that is analogous to “determining which one of the directory information trees is a currently active directory information tree” as featured in this element. Thus, Applicants respectfully submit that this element is not disclosed, taught, or suggested by *Stevens*.

In addition, the Office Action acknowledges that *Stevens* “does not specifically teach retrieving the quality of service policy management information from the currently activity directory information tree only during a time period within the validity period thereof and receiving a validity period value of one of a plurality of directory information trees that are created and stored in the directory service in association with a directory information tree manager.” As the Office Action acknowledges that *Stevens* does not show receiving a validity period value of a one of a plurality of directory information trees, *Stevens* cannot possibly show determining which one of the directory information trees is a currently active information tree, as such a determination is an application of knowing the validity period value for the directory information tree. Consequently, *Stevens* cannot possibly disclose, teach, or suggest this element.

*Chu* is cited to show the element of “receiving a validity period value of one of a plurality of directory information trees that are created and stored in the directory service in association with a directory information tree manager” featured in Claims 1, 18, and 27. However, the portion of *Chu* cited to show this element (Col. 2, lines 15-25) merely states, *in toto*:

“One such dynamic directory service is provided by the User Location Service (ULS). The ULS is known within the art, and is specifically described in R. Williams, Internet Draft “draft-uls-1.txt”, February 1996, which is hereby incorporated by reference. A server maintaining a dynamic directory as provided by the ULS is receptive to requests from clients to add entries to the directory that include a time-to-live value set by the client. If the client does not refresh its entry before the time-to-live value times out, the server is permitted to delete the entry.”

A time-to-live value is not analogous to a validity period value. After the expiration of a time-to-live value, the entry associated with the time-to-live value may be deleted. In sharp contrast, after the expiration of a validity period value, a directory information tree is not marked for deletion, but rather the expiration of the validity period value indicates that the

directory information tree is no longer the currently active directory tree. For example, the Applicants' specification teaches, "each Directory Information Tree object may be designated either as Active, Old, or To Be Erased" (see page 17, lines 18-19). Thus, simply because a particular directory information tree is not active does not mean that the particular directory information tree may be erased, as the directory information tree may be configured to not be deleted and not be active by designating the directory information tree as "old."

Another difference between a time-to-live value and a validity period value is that, presumably, an entry associated with an expired time-to-live value may still be accessed, if the entry has not been deleted. On the other hand, as expressed in Claim 1, the currently active directory information tree is accessed only during a time period within the validity period value. Consequently, a time-to-live value is not analogous to a validity period value.

The cited portion of *Chu* lacks any discussion of: (a) the concept of directory information tree manager, (b) receiving a validity period value, and (c) a plurality of directory information trees. Thus, the cited portion of *Chu* cannot possibly show the element of "receiving a validity period value of one of a plurality of directory information trees that are created and stored in the directory service in association with a directory information tree manager."

Further, the above-cited portion of *Chu* is also cited by the Office Action to show the element of "retrieving the quality of service policy management information from the currently active directory information tree only during a time period within the validity period value thereof" featured in Claims 1, 18, and 27. However, as the cited portion of *Chu* does not discuss the concepts of: (a) retrieving anything during a time period within a validity period value, (b) a currently active directory information tree, and (c) quality of service policy management information, it follows that *Chu* does not disclose, teach, or suggest this element.

As one or more elements of Claims 1, 18, and 27 are not disclosed, taught, or suggested by the cited art, it is respectfully submitted that each of Claims 1, 18, and 27 are patentable over the cited art, and each of Claims 1, 18, and 27 are in condition for allowance. For similar reasons as to those discussed above with respect to Claims 1, 18, and 27, the above-quoted elements of Claims 26 are also not disclosed, taught, or suggested by the cited

art. It is respectfully submitted that, for at least the reasons discussed above, Claim 26 is also patentable over the cited art and in condition for allowance.

B. Claim 9

Independent Claim 9 features:

“receiving a name and creation time value associated with one of a plurality of directory information trees that are stored in the directory service in association with a directory information tree manager;  
receiving quality of service policy information from the one of the plurality of directory information trees;  
determining whether the name or creation time value of the one of the plurality of directory information trees have changed;  
determining that the quality of service policy information is successfully retrieved only when the name or creation time value of the one of the plurality of directory information trees are unchanged.”

The above-quoted elements are not disclosed, taught, or suggested by the cited art.

Rather than explaining why Claim 9 is or is not patentable, the Office Action stated, *in toto*, “As to claims 9-11, since the features of these claims can also be found in claims 1-7, they are rejected for the same reasons set forth in the rejection of claims 1-7 above.” It is respectfully noted that each of the elements of Claim 9 are not featured in any of Claims 1-7. Thus, there are currently no arguments on the record against the patentability of Claim 9.

As explained above, there are numerous, fundamental differences between the cited art and the pending claims. In particular, the element of “determining that the quality of service policy information is successfully retrieved only when the name or creation time value of the one of the plurality of directory information trees are unchanged” is not disclosed, taught, or suggested by *Stevens* or *Chu*. Consequently, it is respectfully submitted that Claim 9 is patentable over the cited art, and is in condition for allowance.

C. Claim 11

Independent Claim 11 features:

“receiving a validity period value of one of a plurality of directory information trees that are created and stored in the directory service in association with a directory information tree manager;

providing, in the directory information tree manager, an active directory information tree value that references a currently active directory information tree, and an old directory information tree value that references a formerly active directory information tree;  
when quality of service policy management information is needed, determining which one of the directory information trees is a currently active directory information tree as indicated by the active directory information tree value of the directory information tree manager;  
retrieving the quality of service policy management information from the currently active directory information tree only during a time period within the validity period value thereof.”

The above-quoted elements are not disclosed, taught, or suggested by the cited art.

Rather than explaining why Claim 11 is or is not patentable, the Office Action stated, *in toto*, “As to claims 9-11, since the features of these claims can also be found in claims 1-7, they are rejected for the same reasons set forth in the rejection of claims 1-7 above.” It is respectfully noted that the element of “providing, in the directory information tree manager, an active directory information tree value that references a currently active directory information tree, and an old directory information tree value that references a formerly active directory information tree,” featured in Claim 11, is not featured in any of Claims 1-7. Thus, there are currently no arguments on the record against the patentability of Claim 11.

As explained above, there are numerous, fundamental differences between the cited art and the pending claims. In particular, as discussed above with respect to Claims 1, 18, and 27, numerous elements of Claim 11 are not disclosed, taught, or suggested by *Stevens* or *Chu*. Consequently, it is respectfully submitted that Claim 9 is patentable over the cited art, and is in condition for allowance.

D. Claim 17

Independent Claim 17 features:

“creating and storing a plurality of directory information trees that are created and stored in the directory service in association with a directory information tree manager;  
when quality of service policy management information is needed, determining which one of the directory information trees is a currently active directory information tree;  
receiving a validity period value of the directory information tree manager;

if the validity period value of the directory information tree manager is currently valid, then performing the steps of:  
receiving a name value and a validity period value of a currently active directory information tree;  
retrieving quality of service policy information from the active directory information tree only during the validity period value of that active directory information tree.”

The above-quoted elements are not disclosed, taught, or suggested by the cited art.

Rather than explaining why Claim 17 is or is not patentable, the Office Action stated, *in toto*, “As to claims 13-24, 26-27, and 29-31, since the features of these claims can also be found in claims 1-7, 9, 11, and 18, they are rejected for the same reasons set forth in the rejection of claims 1-7, 9, 11, and 18 above.” It is respectfully noted that numerous elements featured in Claim 17 are not featured in any of Claims 1-7, 9, 11, and 18. For example, the five elements of Claim 17 beginning with (a) “creating and storing,” (b) “receiving a validity period value,” (c) “if the validity period value of the directory information tree manager is currently valid,” (d) “receiving a name value and a validity period value,” and (e) “retrieving quality of service policy information” are not present in any of Claims 1-7, 9, 11, and 18.

Thus, there are currently no arguments on the record against the patentability of Claim 11.

As explained above, there are numerous, fundamental differences between the cited art and the pending claims. For example, both *Stevens* and *Chu* lack any suggestion of the elements of :“receiving a validity period value of the directory information tree manager,” “receiving a name value and a validity period value of a currently active directory information tree,” and “retrieving quality of service policy information from the active directory information tree only during the validity period value of that active directory information tree.”

Consequently, it is respectfully submitted that Claim 17 is patentable over the cited art, and is in condition for allowance.

E. Claim 29

Independent Claim 29 features:

“testing a validity designation value after carrying out a read operation,

wherein the validity designation value is associated with one of a plurality of directory information trees that are created and stored in a directory service in association with a directory information tree manager, and wherein the plurality of directory information trees are associated with quality of service policy information; and verifying the validity of information that has been read during the read operation by determining whether the validity designation value is currently null.”

The above-quoted elements are not disclosed, taught, or suggested by the cited art.

Rather than explaining why Claim 29 is or is not patentable, the Office Action stated, *in toto*, “As to claims 13-24, 26-27, and 29-31, since the features of these claims can also be found in claims 1-7, 9, 11, and 18, they are rejected for the same reasons set forth in the rejection of claims 1-7, 9, 11, and 18 above.” It is respectfully noted that each of the elements of Claim 29 are not featured in any of Claims 1-7, 9, 11, and 18. Thus, there are currently no arguments on the record against the patentability of Claim 29.

As explained above, there are numerous, fundamental differences between the cited art and the pending claims. In particular, the elements of “testing a validity designation value after carrying out a read operation,” and “verifying the validity of information that has been read during the read operation by determining whether the validity designation value is currently null” are not disclosed, taught, or suggested by *Stevens* or *Chu*. Consequently, it is respectfully submitted that Claim 29 is patentable over the cited art, and is in condition for allowance.

F. Dependent Claims 2-7, 10, 12-16, 18-24, and 28, 30-31

Claims 2-7, 10, 12-16, 18-24, and 28, 30-31 are dependent claims, each of which depends (directly or indirectly) on one of the claims discussed above. Each of Claims 2-7, 10, 12-16, 18-24, and 28, 30-31 is therefore allowable for the reasons given above for the claim on which it depends. In addition, each of Claims 2-7, 10, 12-16, 18-24, and 28, 30-31 introduces one or more additional limitations that independently render it patentable. However, due to the fundamental differences already identified, to expedite the positive resolution of this case a separate discussion of those limitations is not included at this time, although the Applicants reserve the right to further point out the differences between the cited art and the novel features recited in the dependent claims.



G. Rejection of Claims 1-7, 9-24, and 26-31 under on 35 U.S.C. § 103(a) cannot be sustained based on an improper combination of *Stevens* and *Chu*

The Office Action states that it would have been obvious to “apply *Chu*’s dynamic directory service management technique in all the *Stevens*’ replicated directories because it would further facilitates [sic] periodical garbage collection, thereby accurately removing out-of-date information in an efficient manner (*Chu*, Col. 2, lines 29-44).” However, notwithstanding the fact that neither *Stevens* nor *Chu* disclose numerous claim elements of the independent claims, the Applicants respectfully submit that there is nothing in either *Stevens* or *Chu* that teaches or suggests combining their respective teachings.

As stated in the Federal Circuit decision *In re Dembiczak*, 50 USPQ.2d 1617 (Fed. Cir. 1999), (citing *Gore v. Garlock*, 220 USPQ 303, 313 (Fed. Cir. 1983)), “it is very easy to fall victim to the insidious effect of the hindsight syndrome where that which only the inventor taught is used against its teacher.” *Id.* The Federal Circuit stated in *Dembiczak* “that the best defense against subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or suggestion to combine prior art references.” *Id.* Thus, the Federal Circuit explains that a proper obviousness analysis requires “***particular factual findings*** regarding the locus of the suggestion, teaching, or motivation to combine prior art references.” *Id.* (emphasis added).

In particular, the Federal Circuit states:

“We have noted that evidence of a suggestion, teaching, or motivation to combine may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem to be solved...although ‘the suggestion more often comes from the teachings of the pertinent references’...The range of sources available, however, does ***not diminish the requirement for actual evidence***. That is, the ***showing must be clear and particular***...Broad conclusory statements regarding the teaching of multiple references, standing alone, are not ‘evidence.’” *Id.* (emphasis added; internal citations omitted).

Neither *Stevens* or *Chu* show any suggestion, teaching, or motivation to combine their teachings, nor does the Office Action provide a “clear and particular” showing of the suggestion, teaching, or motivation to combine their teachings. In fact, the only motivation provided in the Office Action is the observation that by combining features of those

references, one may facilitate garbage collection. However, there is no indication in *Chu* of how the client/server model of *Chu* may be used with or augment the utility of the distributed model of *Stevens*, let alone how the approach to garbage collection of *Chu* may be used in the approach of *Stevens*. In particular, *Chu* teaches that if a client does not refresh its entry before the time-to-live value times out, the server is permitted to delete the entry (Col. 2, lines 23-25). However, in the approach of *Stevens*, instead of a client contacting a server, the server transfers directory information to network devices (See *Stevens*, Col. 13, lines 14-43). Thus, the approach of *Stevens* requires that the distributed network devices maintain the policy information that the network devices are sent, and may not simply delete the policy information after the expiration of a certain time interval.

It is respectfully submitted that such a hindsight observation is not consistent with the Federal Circuit's requirement for "particular factual findings." Consequently, the rejection of Claims 1-7, 9-24, and 26-31 under 35 U.S.C. § 103(a) cannot be sustained. For at least the reasons given above, Claims 1-7, 9-24, and 26-31 are in condition for allowance.

H. Objected Claims 8 and 25

Claims 8 and 25 have been objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. As explained above, Applicants respectfully submit that each rejected base claim of Claims 8 and 25 is in condition for allowance. Consequently, it is respectfully submitted that Claims 8 and 25 are also in condition for allowance.

## CONCLUSION

The Office Action acknowledges that Claim 32 is directed to allowable subject matter.

For the reasons set forth above, it is respectfully submitted that all of the pending claims are now in condition for allowance. Therefore, the issuance of a formal Notice of Allowance is believed next in order, and that action is most earnestly solicited.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any fee shortages or credit any overages Deposit Account No. 50-1302.

Respectfully submitted,

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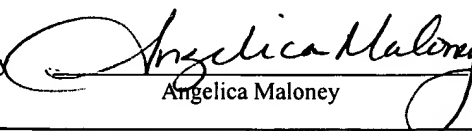
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On October 6, 2004

By

  
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